

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Confirmation No.: 5960
Anniina HONKANEN et al. Group Art Unit: 1789
Application No.: 10/553,760 Examiner: Lela WILLIAMS
Filed: August 21, 2006 Attorney Docket No.: 019075-00072
For: EDIBLE PRODUCT WITH MASKED BITTER, SOUR AND/OR ASTRINGENT TASTE

RESPONSE UNDER 37 C.F.R § 1.111

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

April 7, 2011

Sir:

The Office Action dated January 7, 2011, has been received and carefully noted.

The following remarks are being submitted as a full and complete response thereto.

Claims 1, 3-5, 7-32, and 35 are rejected. Applicants respectfully request reconsideration and withdrawal of the rejections.

Claim Rejections – 35 U.S.C. §112

Claims 1, 3-5, 7-32, and 35 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserts that there is no disclosure in the specification for the “insufficient” language recited by the claims. Applicants respectfully traverse the rejection.

The Manual of Patent Examining Procedure (MPEP) states the following with respect to the written description requirement of amended claims:

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. While there is **no *in haec verba* requirement**, newly added claim limitations must be supported in the specification through **express, implicit, or inherent disclosure**. The fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. (Emphasis added).

See MPEP § 2163. Applicants respectfully submit that, in view of the above standard, the "insufficient" feature recited by claim 1 complies with the written description requirement. In particular, the instant application taken as a whole, including page 5, lines 13 to 31, page 7, lines 27 to 32, page 8, lines 31 to 34, and page 9, lines 16 to 35, page 17, lines 6 to 9, page 17 line 31 to page 18, line 3, page 18, lines 9 to 12, page 19, lines 5 to 9 and Examples 4 to 33 found on pages 19 to 25, conveys with reasonable clarity to those skilled in the art that applicant was in possession of the invention as now claimed. The above-cited portions of the application repeatedly explain that the advantage of the invention is to reduce the amount sweetener normally present in a "regular product." The cited disclosure further makes clear that less sweetener is used in the instant invention because plant sterol makes up for the lack of sweetener. Thus, the "insufficient" claim language describes exactly what is disclosed

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throughout the application, and at the very least, implicitly or inherently supports the claim language.

Claim Rejections – 35 U.S.C. §102

Claims 1, 3, 4, 7, 8, 32 and 35 are rejected under 35 U.S.C. §102(b) as being anticipated by Sarama et al. (WO Patent No. 01/54686, hereinafter “Sarama”). Applicants respectfully traverse the rejection.

Claim 1 recites “[a] method for preparing an edible product comprising a sweetening agent for masking a bitter, sour and/or astringent taste of the edible product, the method comprising: providing an amount of sweetening agent that is ***insufficient to entirely mask the bitter, sour and/or astringent taste of the edible product***; and adding a plant sterol ester in an amount that, ***in combination with the sweetening agent***, is effective to mask the bitter, sour, and/or astringent taste of the edible product, wherein the amount of plant sterol ester added is from 0.2 to 25% by weight.” (Emphasis added). Claims 3, 4, 7, 8, and 35 depend directly or indirectly on claim 1. Claim 32 recites similar features to claim 1.

The Office Action has maintained that Sarama teaches all of the features recited by claim 1. In particular, the Office Action has taken the position that while Sarama does not expressly teach the above-emphasized steps, because Sarama discloses providing sweetening agent and plant sterol in amounts that fall within the claimed range, Sarama inherently performs the recited steps. In other words, the Office Action concludes that if the same amount of sweetening agent and plant sterol ester is being added by Sarama, then the steps recited by claim 1 would also be performed by

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Sarama.

At the outset, Applicants note that, as a method claim, the “insufficient” step imparts an additional requirement beyond the mere inclusion of an amount of sweetener and sterol falling within a particular range. The ranges of sweetener and sterol disclosed by Sarama are broad because of the variety of edible products to which the sweetener and sterol may be added. However, the “insufficient” step imparts an additional limitation that further narrows the amount of sweetener and sterol used in a particular edible product. In Examples 4-22 of the instant application, the amount of sweetener and sterol varies, but in each case less sweetener was used than is used in a “regular product” (i.e. an insufficient amount of sweetener was added). As a hypothetical to illustrate this concept, if in Example 4 the amount of sucrose was increased and the amount of sterol was decreased, the amounts would still fall within the recited range, but the step of providing an insufficient amount of sweetener would not be met because there would not be an insufficient amount of sweetener present. This hypothetical illustrates how the “insufficient” step is narrower than a range being recited alone.

Applicants note Office Action’s inherency argument appears to presume that Sarama sufficiently teaches every possible combination of sweetener and sterol as long as the selected amounts of each fall somewhere within the disclosed ranges. Applicants acknowledge that if Sarama does indeed sufficiently teach every combination of sweetener and sterol, then a particular combination where the sweetener is insufficient to mask an undesirable taste would exist.

However, Applicants respectfully submit that Sarama does not teach the

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particular combination of sweetener and sterol with sufficient specificity to anticipate the steps recited by claim 1. The MPEP states:

When the prior art discloses a range which touches or overlaps the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation... In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute...." The question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching... If one of ordinary skill in the art is able to "at once envisage" the specific compound within the generic chemical formula, the compound is anticipated.

See MPEP § 2131.03 and § 2131.02. As discussed above, the "insufficient" step adds an additional limitation that narrows the scope of the broad range of sweetener and sterol disclosed by Sarama. Essentially, claim 1 recites a particular species of the broad range taught by Sarama. As cited by the Office Action, Sarama teaches a broad range of sweetening agent, from 0.1% to 20%. Sarama also teaches a broad range of plant sterol, from 0.0001% to 25%. Sarama teaches a broad range of sweetener because the amount of sweetener used depends on the particular sweetener, desired sweetness, and type of edible product. See pages 27 to 28. The range of plant sterol is also broadly disclosed because the amount depends on the particular sterol and how much L-arginine is being added to the edible product. See pages 6-8. Sarama does not provide any specific examples where the amount of sweetener is insufficient to mask an undesired taste. Because Sarama merely discloses broad ranges, and there are no examples provided where particular amounts of sweetener and sterol are chosen such that the sweetener alone is insufficient to mask undesirable taste while the

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combination is sufficient for such purposes, Sarama does not sufficiently disclose the narrow combination of sweetener and sterol that is recited by claim 1. Furthermore, because of the broad range and lack of examples, one of ordinary skill in the art would not be able to "at once envisage" the specific combination of sweetener and sterol required by claim 1 within the generic teaching of Sarama. Therefore, for at least the above reasons, Applicants respectfully submit that the anticipation rejection is improper.

Additionally, Applicants respectfully submit that, based on Sarama alone, it would not have been obvious to one having ordinary skill in the art to select a combination of sweetener and sterol such that the amount of sweetener alone is insufficient to mask the undesirable taste. In particular, one having ordinary skill in the art would not be motivated to arrive at the claimed invention based on the teaching of Sarama.

The intent of Sarama is to mask the undesirable taste of the L-arginine (and only L-arginine) by providing plant sterol. The masked flavor composition is then added to a finished food product. See page 20, fifth paragraph. Thus, the amount of plant sterol in the product has nothing to do with the amount of sweetening agent present. In other words, the product of Sarama is intended to be added to a pre-made or ready-to-make edible food, such as baked goods. See the paragraph bridging pages 20 and 21. While Sarama does teach products having sweetening agent, Sarama never contemplates using less sweetening agent than necessary to mask a bitter taste because the edible product is already intended to have a pleasurable taste. See pages 27 to 28. Due to the fact that Sarama teaches a pre-made composition which is added to an existing food product, there is no reason for one having ordinary skill in the art to remove a portion of the sweetening agent.

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As discussed above, a broad range of sterol is taught because, among other reasons, more sterol is necessary depending on the particular sterol chosen. However, in accordance with the goal of Sarama, there is always just enough sterol to mask the undesirable L-arginine flavor. Similarly, as discussed above, the sweetening agent range taught by Sarama is broad because it is intended to encompass different edible products and varying degrees of sweetness (but never insufficiently sweet). Thus, absent an express teaching, one having ordinary skill in the art would have no reason to use less than enough sweetener to mask an undesirable taste of the edible product, and then add enough plant sterol ester to mask that bitter flavor. Applicants respectfully submit that there is no motivation for one having ordinary skill in the art to arrive at the particular species recited by claim 1 based on the broad genus disclosed by Sarama.

Claim Rejections – 35 U.S.C. §103

Claims 5, 9, 11, 12, 20-23 and 29-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sarama. Applicants respectfully traverse the rejection.

Claims 5 and 9 depend directly or indirectly from claim 1, which is discussed above. Claims 11, 12, 20-23, and 29-31 recite various edible products having various ranges of weight of plant sterols, all of which fall within the 0.0001% to 25% range taught by Sarama. The Office Action admits, however, that Sarama does not teach the amount of sweetening agent in the edible products, the reduced sweetener amount, the viscosity of the beverages, or the edible product being milk based. In order to cure this deficiency, the Office Action states that it would have been obvious to determine the amount of plant sterol, sweetener, and viscosity necessary in any variety of foods in

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view of the teaching of using the plant sterol ester in edible products to improve taste.

The deficiencies of Sarama are discussed above. For the reasons provided above, Applicants respectfully submit that Sarama does not teach, suggest, or render obvious all of the features recited by claims 5, 9, 11, 12, 20-23, and 29-31.

Claims 10 and 13-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sarama et al. (WO Patent No. 01/54686, hereinafter "Sarama") in view of Yoon et al. (WO Patent No. 02/28204, hereinafter "Yoon"). Applicants respectfully traverse the rejection.

Claims 10 and 13-18 recite various edible products having various ranges of plant sterol esters, all of which fall within the 0.0001% to 25% range taught by Sarama, which is discussed above. The Office Action admits, however, that Sarama does not teach cereal milk based products, soy based yoghurt products, or the specific amount of sweetener. To cure this deficiency, the Examiner cites Yoon. The Office Action asserts that Yoon teaches adding plant sterols to various edible products including water, juice, coffee, tea, milk, soy milk, and grain. See page 9, line 30. The Office Action concludes that it would have been obvious to combine soy with other milk beverages of the edible products. Furthermore, the Office Action takes the position that because the specification does not disclose unexpected results, that it would have been obvious to optimize the ranges of plant sterol ester and sweetener necessary to create the desirable taste.

However, Yoon fails to teach, suggest, or render obvious the steps of using less sweetener in an edible product and adding plant sterol ester. Therefore, Applicants respectfully submit that Sarama and Yoon, alone or in combination, do not teach,

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suggest, or render obvious all of the features recited by claims 10 and 13-18.

Claims 19 and 24-28 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sarama in view of Vulpson et al. (WO 00/41491, hereinafter "Vulpson"). Applicants respectfully traverse the rejection.

Claims 19 and 24-28 recite various edible products having various ranges of plant sterol esters, carbohydrate sweeteners, and non-carbohydrate sweeteners. Sarama has been discussed above. The Office Action admits that Sarama does not disclose a fermented milk beverage or the specific type of sweetener. In order to cure this deficiency, the Examiner cites Vulpson. Vulpson discloses adding plant sterol esters to fermented milk products such as yoghurt. See page 1, line 13. The Examiner asserts that it would have been obvious to one skilled in the art to determine the amount of plant sterol ester and sweetener to add to these edible products to achieve a desirable taste.

However, Vulpson fails to teach, suggest, or render obvious the steps of using less sweetener in an edible product and adding plant sterol ester. Therefore, Applicants respectfully submit that Sarama and Vulpson, alone or in combination, do not teach, suggest, or render obvious all of the features recited by claims 19 and 24-28.

Conclusion

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 019075-00072.

Respectfully submitted,



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